ABSTRACT

A semiconductor chip having a planar active surface including an integrated circuit protected by an inorganic overcoat; the circuit has metallization patterns including a plurality of contact pads. Each of these contact pads has an added conductive layer on the circuit metallization. This added layer has a conformal surface adjacent the chip, including peripheral portions of the overcoat, and a planar outer surface; this outer surface is suitable to form metallurgical bonds without melting. The chip contact pads may have a distribution arrayed in the center of the chip in close proximity to the chip neutral line; the distribution may leave an area portion of the active chip surface available for attaching a thermally conductive plate. The chip may further have a non-conductive adhesive layer over the overcoat, filling the spaces between the added conductive layers on each contact pad.